

Safety Issue Type: Investigations

March 16 2018 NHTSA Action Number: PE18003 **OPEN INVESTIGATION**

Air bags may be disabled during crash

NHTSA Action Number PE18003

Components AIR BAGS

Opened From March 16 2018 - Present

Summary

The Office of Defects Investigation (ODI) is currently aware of six crashes with significant collision related damage events involving Hyundai and Kia models where air bags failed to deploy in frontal crashes. Four such crashes involved model year (MY) 2011 Hyundai Sonatas and two others involved MY 2012 and MY 2013 Kia Fortes. The MY 2013 Forte crash occurred in Canada and the Forte was a Canadian market vehicle. ODI learned of two crashes via Vehicle Owner Questionnaires (VOQ) filed in 2015 and 2016, and all six crashes were reported via Early Warning Reporting submitted between 2012 and 2017. In total, the crashes resulted in four fatalities and six injuries.

On February 27, 2018, Hyundai filed a defect information report leading to NHTSA Recall No. 18V-137. Hyundai indicates that the DIR stemmed from post-collision inspections of the air bag control units (ACUs) showing that an electrical overstress condition (EOS) of an ACU electronic component occurred in three of the crashes, and that the fourth ACU is under evaluation for the same concern. Hyundai has not identified a remedy for this recall, and states that the cause of the EOS is being investigated with the ACU supplier, ZF-TRW. ODI's current understanding is that the above Kia products also use similar ACUs supplied by ZF-TRW. Additionally, ODI is aware of a prior recall, 16V-668 where EOS appeared to be a root cause of air bag non-deployment in significant frontal crashes in certain Fiat Chrysler vehicles.

Under the investigation, ODI will evaluate the scope of Hyundai's recall, confirm Kia's use of the same or similar ZF-TRW ACU, review the root cause analysis of all involved parties, and review and evaluate pertinent vehicle and/or ACU factors that may be contributing to, or causing EOS failures. Additionally, ODI will determine if any other vehicle manufacturers used the same or similar ACUs, as supplied by ZF-TRW, and if so, evaluate whether the field experience of these vehicles indicates potentially related crash events.

The above VOQs can be reviewed at NHTSA.gov under identification numbers 10781050 and 10849839.

Affected Products (6)

Vehicle

MAKE	MODEL	YEAR
HYUNDAI	SONATA	2011
HYUNDAI	SONATA HYBRID	2011
KIA	FORTE	2012-2013
KIA	FORTE KOUP	2012-2013

Associated Documents (3)

OPENING RESUME APPROVED

INOA-PE18003-9810.PDF 940.367KB

<https://static.nhtsa.gov/odi/inv/2018/INOA-PE18003-9810.PDF>

IR LETTER TO HYUNDAI

INIM-PE18003-73539.pdf 4568.16KB

<https://static.nhtsa.gov/odi/inv/2018/INIM-PE18003-73539.pdf>

IR LETTER TO KIA

INIM-PE18003-73538.pdf 4334.994KB

<https://static.nhtsa.gov/odi/inv/2018/INIM-PE18003-73538.pdf>

Associated Recalls (3)

Subject Air Bags/Seat Belt Pretensioners may be Disabled

NHTSA Campaign Number 18V137000

Date received February 27 2018

Summary

Hyundai Motor America (Hyundai) is recalling certain 2011-2013 Sonata and 2011-2012 Sonata Hybrid vehicles.

On February 27, 2018, Hyundai Motor Company (Hyundai) notified NHTSA that they were recalling 154,753 model year 2011 Sonata vehicles. On April 18, 2018, Hyundai expanded the recall to include an additional 425,305 model year 2012-2013 Sonata and 2011-2012 Sonata Hybrid vehicles.

In the event of a crash, the air bag control unit (ACU) may short circuit, preventing the frontal air bags, seat belt pretensioners, and side air bags from deploying.

Subject Air Bags/Seat Belt Pretensioners may be Disabled

NHTSA Campaign Number 18E043000

Date received June 20 2018

Summary

TRW Automotive Inc (TRW) has submitted a Defect Information Report based upon decisions made by Hyundai Motor America and Kia Motors America to conduct recalls (numbers 18V137 and 18V363 respectively). In the event of a crash, certain ZF Air Bag Control Units (ACU) may be damaged from electrical overstress, preventing the frontal air bags and seat belt pretensioners from deploying.

Subject Air Bags/Seat Belt Pretensioners may be Disabled

NHTSA Campaign Number 18V363000

Date received June 01 2018

Summary

Kia Motors America (Kia) is recalling certain 2010-2013 Kia Forte, Forte Koup, 2011-2013 Kia Optima and 2011-2012 Kia Optima Hybrid and Sedona vehicles. In the event of a crash, the air bag control unit (ACU) may short circuit, preventing the frontal air bags and seat belt pretensioners from deploying.